AMENDMENT TO THE SPECIFICATION

Please replace the paragraph starting on page 4, line 9 with the following amended paragraph:

~~Fig. 1 shows~~ Figs. 1a and 1b show the schematics of lattice mismatch (Fig. 1a) and band offset (Fig. 1b) in AlGaN and InGaN grown on GaN.

Please replace the paragraph starting on page 6, line 3 with the following amended paragraph:

Referring now to ~~Figure 1~~ Figures 1a and 1b, the schematics of lattice mismatch and band offset in AlGaN and InGaN grown on GaN are shown. As shown in ~~(a)~~ Figure 1a, strain free growth of 50% AlGaN on GaN 10 yields a positive lattice mismatch of roughly 0.003 nm. However, strain free growth of only 10% InGaN on GaN 12 is required to yield a similar negative lattice mismatch. As shown in ~~(b)~~ Figure 1b, the same 50% AlGaN on GaN 14 has a band offset of about 1.4 eV while the same 10% InGaN on GaN 16 has a band offset of only about 0.2 eV. Based on a linear extrapolation of lattice constants as functions of molar fractions, it is estimated that quaternary $Al_xIn_yGa_{1-x-y}N$ layers with an Al/In mole fraction ratio of 5 should be nearly lattice matched to GaN while the band offset will be about 1.2 eV.